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THE CLAIMS

Following is a listing of claims:

1-46. (Canceled)

 (Previously presented) A composition comprising an effective amount of a compound of formula I:

I

or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier, adjuvant, or vehicle, wherein:

$$R^{1}$$
 is $-(L)_{m}R$, $-(L)_{m}Ar^{1}$, or $-(L)_{m}Cy^{1}$;

- L is -S-, -O-, -N(R)-, or a C₁₋₆ alkylidene chain wherein up to two non-adjacent methylene units of L are optionally and independently replaced by -S-, -O-, -N(R)-, -N(R)C(O)-, -N(R)C(S)-, -N(R)C(O)N(R)-, -N(R)C(S)N(R)-, -N(R)CO₂-, -C(O)-, -CO₂-, -C(O)N(R)-, -C(S)N(R)-, -OC(O)N(R)-, -SO₂-, -SO₂N(R)-, -N(R)SO₂-, -N(R)SO₂N(R)-, -C(R)=NN(R)-, -C(R)=N-O(R)-, -C(O)C(O)-, or -C(O)CH₂C(O)-; m is 0 or 1:
- Ar¹ is an optionally substituted 5-7 membered monocyclic ring or an 8-10 membered bicyclic ring having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur:
- Cy¹ is an optionally substituted 3-7 membered saturated or partially unsaturated monocyclic ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or an 8-10 membered saturated or partially unsaturated bicyclic

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ring system having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur, wherein:

 Ar^{I} and Cy^{J} are each optionally substituted with up to 5 occurrences of Z- R^{X} ; wherein each occurrence of Z is independently a bond or a $C_{1^{-6}}$ alkylidene chain, wherein up to

two non-adjacent methylene units of Z are optionally replaced by -S-, -O-, -N(R)-, -N(R)C(O)-, -N(R)C(S)-, -N(R)C(O)N(R)-, -N(R)C(S)N(R)-, -N(R)C(O)-, -C(O)-.

-CO₂-, -C(O)N(R)-, -C(S)N(R)-, -OC(O)N(R)-, -SO₂-, -SO₂N(R)-, -N(R)SO₂-,

 $-N(R)SO_2N(R)$ -, -C(R)=NN(R)-, -C(R)=N-O(R)-, -C(O)C(O)-, or $-C(O)CH_2C(O)$ -;

each occurrence of RX is independently selected from -R', halogen, NO₂, CN, -OR',

-SR', -N(R')₂, -N(R')C(O)R', -N(R')C(S)R', -N(R')C(O)N(R')₂, -N(R')C(S)N(R')₂,

-N(R')CO₂R', -C(O)R', -C(S)R', -CO₂R', -OC(O)R', -C(O)N(R')₂, -C(S)N(R')₂,

 $-N(R)CO_2R$, -C(O)R, -C(S)R, $-CO_2R$, -OC(O)R, $-C(O)N(R)_2$, $-C(S)N(R)_2$,

 $-OC(O)N(R^{\prime})_{2}, -S(O)R^{\prime}, -SO_{2}R^{\prime}, -S(O)_{3}R^{\prime}; -SO_{2}N(R^{\prime})_{2}, -N(R^{\prime})SO_{2}R^{\prime}, \\$

 $-N(R')SO_2N(R')_2, -C(O)C(O)R', -C(O)CH_2C(O)R', -NR'NR'C(O)R', \\$

 $-NR'NR'C(O)N(R')_2, -NR'NR'CO_2R', -C(O)N(OR')\ R', -C(NOR')\ R', \ -S(O)_3R,$

-N(OR')R', -C(=NH)-N(R')2; or -(CH2)0-2NHC(O)R'; wherein

each occurrence of R is independently hydrogen or an optionally substituted C₁₋₆ aliphatic group,

- each occurrence of R' is independently hydrogen or an optionally substituted $C_{1.6}$ aliphatic group, an optionally substituted $C_{6.10}$ aryl ring, an optionally substituted heteroaryl ring having 5-10 ring atoms, or an optionally substituted heterocyclyl ring having 3-10 ring atoms; or
- R and R' or two occurrences of either R or R' are taken together with the atoms to which they are bound to form an optionally substituted 5-8 membered saturated, partially unsaturated, or aryl ring having 0-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or
- two occurrences of either R' or R on the same nitrogen are taken together with the nitrogen atom to which they are bound to form an optionally substituted 5-8

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membered saturated, partially unsaturated, or aryl ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur:

R² is hydrogen, CN, -SR, -OR, -CO₂R, -OC(O)R, -C(O)R, -C(O)N(R)₂, -N(R)₂, or -N(R)C(O)R;

T is CR3;

each of A1, A2, and A3 is, independently, CR4;

R³ is selected from hydrogen, halogen, NO₂, CN, -SR, -OR, -N(R)₂, or an optionally substituted C₁₋₆ aliphatic group; and

R⁴ is selected from halogen, NO₂, CN, -(L)_mR, -(L)_mAr¹, or -(L)_mCy¹; or two R⁴ groups on adjacent atoms are taken together to form an optionally substituted 5-7 membered partially unsaturated or fully unsaturated ring having 0-3 heteroatoms independently selected from oxygen, sulfur, or nitrogen, wherein:

each ring formed by two R^4 groups on adjacent atoms taken together is optionally substituted with up to 4 occurrences of Z- R^X .

48. (Canceled)

49. (Previously presented) The composition of claim 47, additionally comprising a therapeutic agent selected from mechlorethamine, chlorambucil, cyclophosphamide, melphalan, ifosfamide, methotrexate, 6-mercaptopurine, 5-fluorouracil, cytarabile, gemeitabine, vinblastine, vincristine, vinorelbine, paclitaxel, etoposide, irinotecan, topotecan, doxorubicin, bleomycin, mitomycin, carmustine, lomustine, cisplatin, carboplatin, asparaginase, and tamoxifen, leuprolide, flutamide, megestrol, imatinib (GleevecTM), adriamycin, dexamethasone, or cyclophosphamide.

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50. (Previously presented) A method of inhibiting c-MET kinase activity in a biological sample, wherein said biological sample is selected from a cell culture, biopsied material obtained from a mammal, saliva, urine, feces, semen, or tears, or an extract thereof; which method comprises contacting said biological sample with a composition according to claim 47 or a compound of formula 1:

I

or a pharmaceutically acceptable salt thereof, wherein:

 R^{1} is $-(L)_{m}R$, $-(L)_{m}Ar^{1}$, or $-(L)_{m}Cy^{1}$;

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m is 0 or 1;

- Ar¹ is an optionally substituted 5-7 membered monocyclic ring or an 8-10 membered bicyclic ring having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur;
- Cy¹ is an optionally substituted 3-7 membered saturated or partially unsaturated monocyclic ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or an 8-10 membered saturated or partially unsaturated bicyclic ring system having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur, wherein;

Ar¹ and Cy¹ are each optionally substituted with up to 5 occurrences of Z-R^X; wherein

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each occurrence of Z is independently a bond or a C₁-6 alkylidene chain, wherein up to two non-adjacent methylene units of Z are optionally replaced by -S-, -O-, -N(R)-, -N(R)C(O)-, -N(R)C(S)-, -N(R)C(O)N(R)-, -N(R)C(S)N(R)-, -N(R)CO₂-, -C(O)-, -CO₂-, -C(O)N(R)-, -C(S)N(R)-, -OC(O)N(R)-, -SO₂-, -SO₂N(R)-, -N(R)SO₂-, -N(R)SO₂N(R)-, -C(R)=NN(R)-, -C(R)=N-O(R)-, -C(O)C(O)-, or -C(O)CH₂C(O)-; each occurrence of R^X is independently selected from -R', halogen, NO₂, CN, -OR', -SR', -N(R')₂, -N(R')C(O)R', -N(R')C(S)R', -N(R')C(O)N(R')₂, -N(R')C(S)N(R')₂, -N(R')CO₂R', -C(O)R', -C(S)R', -CO₂R', -C(O)R', -C(O)N(R')₂, -C(S)N(R')₂, -N(R')C(S)R', -N(R')C(S)R', -C(S)N(R')₂, -N(R')C(S)N(R')₂, -N

 $-OC(O)N(R')_2$, -S(O)R', $-SO_2R'$, $-S(O)_3R'$; $-SO_2N(R')_2$, $-N(R')SO_2R'$,

 $-N(R')SO_2N(R')_2, -C(O)C(O)R', -C(O)CH_2C(O)R', -NR'NR'C(O)R', \\$

 $-NR'NR'C(O)N(R')_2, -NR'NR'CO_2R', -C(O)N(OR')\ R', -C(NOR')\ R', \ -S(O)_3R,$

-N(OR')R', -C(=NH)-N(R')2; or -(CH2)0-2NHC(O)R'; wherein

each occurrence of R is independently hydrogen or an optionally substituted $C_{1:6}$ aliphatic group,

- each occurrence of R' is independently hydrogen or an optionally substituted C_{1-6} aliphatic group, an optionally substituted C_{6-10} aryl ring, an optionally substituted heteroaryl ring having 5-10 ring atoms, or an optionally substituted heterocyclyl ring having 3-10 ring atoms; or
- R and R' or two occurrences of either R or R' are taken together with the atoms to which they are bound to form an optionally substituted 5-8 membered saturated, partially unsaturated, or aryl ring having 0-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or
- two occurrences of either R' or R on the same nitrogen are taken together with the nitrogen atom to which they are bound to form an optionally substituted 5-8 membered saturated, partially unsaturated, or aryl ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

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$$\begin{split} R^2 & is \ hydrogen, CN, -SR, -OR, -CO_2R, -OC(O)R, -C(O)R, -C(O)N(R)_2, -N(R)_2, \\ & -N(R)C(O)R, or \ an \ optionally \ substituted \ C_{1.6} \ aliphatic \ group; \end{split}$$

T is CR3:

each of A1, A2, and A3 is, independently, CR4;

R³ is selected from hydrogen, halogen, NO₂, CN, -SR, -OR, -N(R)₂, or an optionally substituted C₁₋₆ aliphatic group; and

R⁴ is selected from halogen, NO₂, CN, -(L)_mR, -(L)_mAr¹, or -(L)_mCy¹; or two R⁴ groups on adjacent atoms are taken together to form an optionally substituted 5-7 membered partially unsaturated or fully unsaturated ring having 0-3 heteroatoms independently selected from oxygen, sulfur, or nitrogen, wherein;

each ring formed by two R⁴ groups on adjacent atoms taken together is optionally substituted with up to 4 occurrences of Z-R^X.

51. (Canceled)

- 52. (Previously presented) A method of treating or lessening the severity of a disease or condition in a patient selected from gastric cancer, pancreatic cancer, ovarian cancer, breast cancer, or prostate cancer comprising the step of administering to said patient a composition of claim 47.
- 53. (Previously presented) The method according to claim 52, comprising the additional step of administering to said patient an additional therapeutic agent selected from mechlorethamine, chlorambucil, cyclophosphamide, melphalan, ifosfamide, methotrexate, 6-mercaptopurine, 5-fluorouracil, cytarabile, gemeitabine, vinblastine, vinoreibine, paclitaxel, etoposide, irinotecan, topotecan, doxorubicin, bleomycin, mitomycin, carmustine, lomustine, cisplatin, carboplatin, asparaginase, and

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tamoxifen, leuprolide, flutamide, megestrol, imatinib (GleevecTM), adriamycin, dexamethasone, or cyclophosphamide, wherein:

said additional therapeutic agent is appropriate for the disease being treated; and said additional therapeutic agent is administered together with said composition as a single dosage form or separately from said composition as part of a multiple dosage form.

54-58. (Canceled)

59. (Previously presented) The composition according to claim 47, wherein R¹ is -(L)_mAr¹ and Ar¹ is selected from one of the following groups:

wherein x is 0-5.

60. (Previously presented) The composition according to claim 59, wherein Ar¹ is selected from one of the following groups:

wherein x is 0-5.

61. (Previously presented) The composition according to claim 59, wherein R^1 is $-(L)_m$ - Ar^1 , m is 1 and compounds have the formula IA-1:

62. (Previously presented) The composition according to claim 59, wherein Ar¹ is phenyl with 0-5 occurrences of ZR^X and compounds have the formula IA-1-5:

IA-1-5,

wherein x is 0-5.

63. (Previously presented) The composition according to claim 47, wherein R¹ is -(L)_m-Cy¹ and compounds have the formula IA-2:

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64. (Previously presented) The composition according to claim 63, wherein Cy¹ is selected from one of the following groups:

- 65. (Previously presented) The composition according to claim 59, wherein L is an optionally substituted C₁₋₆ straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCS, NRCONR, NRCSNR, NRCO₂, CO, CO₂, CONR, CSNR, OC(O)NR, SO₂, SO₂NR, NRSO₂, NRSO₂NR, C(O)C(O), or C(O)CH₂C(O).
- 66. (Previously presented) The composition according to claim 65, wherein L is an optionally substituted C_{1.6} straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, CO, CONR, SO₂NR, NRSO₂.

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- 67. (Previously presented) The composition according to claim 47, wherein R¹ is -(L)_mR, L is an optionally substituted C₁₋₆ straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCONR, NRCO₂, CO, CO₂, CONR, OC(O)NR, SO₂, SO₂NR, NRSO₂, NRSO₂NR, and R is an optionally substituted C₁₋₆ aliphatic group.
- 68. (Previously presented) The composition according to claim 47, wherein R^2 is hydrogen, -CN, -OQ, -CO2R, -OC(O)R, -C(O)R, -C(O)N(R)₂, -N(R)₂, or -N(R)C(O)R.

69-70. (Canceled)

71. (Previously presented) The composition according to claim 47, wherein R² is hydrogen and compounds have the formula IB:

- (Previously presented) The composition according to claim 47, wherein T is CR³ and R³ is hydrogen, halogen, CN, or an optionally substituted C₁₋₆ aliphatic group.
- 73. (Previously presented) The composition according to claim 72, wherein R³ is hydrogen, halogen, CF₃, methyl, ethyl, n-propyl, isopropyl, or cyclopropyl.

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74. (Previously presented) The composition according to claim 47, wherein T is CR³, R³ is hydrogen and compounds have the formula **IC**:

- 75. (Previously presented) The composition according to claim 47, wherein A¹ is CR⁴ and R⁴ is halogen. CN, -(L)_mR, -(L)_mAr¹, or -(L)_mCy¹.
- 76. (Previously presented) The composition according to claim 75, wherein L is an optionally substituted C_{1.6} straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCONR, NRCO₂, CO, CO₂, CONR, OC(O)NR, SO₂, SO₂NR, NRSO₂, NRSO₂NR, C(O)C(O), or C(O)CH₂C(O).
- (Previously presented) The composition according to claim 75, wherein A¹ is CR⁴ and R⁴ is halogen, CN, or R.
- 78. (Previously presented) The composition according to claim 75, wherein A¹ is CR⁴, R⁴ is -(L)_mR, and compounds have the formula **ID-1**:

 (Previously presented) The composition according to claim 75, wherein A¹ is CR⁴, R⁴ is -(L)_mAr¹, and compounds have the formula ID-2;

$$Ar_1^1$$
 $N(OH)$
 $m(L)$ A^2
 A^3 O R^1
 $D-2$

(Previously presented) The composition according to claim 75, wherein A¹ is CR⁴, R⁴ is -(L)_mCy¹, and compounds have the formula 1D-3:

- 81. (Previously presented) The composition according to claim 47, wherein A² is CR⁴ and R⁴ is halogen, CN, -(L)_mR, -(L)_mAr¹, or -(L)_mCy¹.
- 82. (Previously presented) The composition according to claim 81, wherein L is an optionally substituted C₁₋₆ straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCONR, NRCO₂, CO, CO₂, CONR, OC(O)NR, SO₂, SO₂NR, NRSO₂, NRSO₂NR, C(O)C(O), or C(O)CH₂C(O).
- 83. (Previously presented) The composition according to claim 81, wherein A² is CR⁴ and R⁴ is halogen or R.

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84. (Previously presented) The composition according to claim 81, wherein A² is CR⁴ and R⁴ is -(L)_mR, wherein L is -O- or -N(R)-.

- 85. (Previously presented) The composition according to claim 81, wherein A^2 is CR^4 , R^4 is $-(L)_mCy^1$, m is 0 and Cy^1 is 2-2, 2-5, 2-6, 2-7, 2-8, or 2-12.
- 86. (Previously presented) The composition according to claim 81, wherein A² is CR^4 , R^4 is $-(L)_mAr^1$, m is 0 and Ar^1 is 1-5, 1-6, 1-11, 1-12, 1-13, 1-19, 1-24, or 1-25.
- 87. (Previously presented) The composition according to claim 81, wherein A² is CR⁴, R⁴ is -(L)_mR, and compounds have the formula **IE-1**:

88. (Previously presented) The composition according to claim 81, wherein A² is CR⁴, R⁴ is -(L)_mAr¹, and compounds have the formula IE-2:

IF-2

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89. (Previously presented) The composition according to claim 81, wherein A^2 is CR^4 , R^4 is $-(L)_mCy^1$, and compounds have the formula 1E-3:

$$m(L)$$
 $M(OH)$
 R^2
 R^2
 Cy^1
 $E-3$

- (Previously presented) The composition according to claim 47, wherein A³ is CR⁴ and R⁴ is halogen, CN, -(L)_mR, -(L)_mAr¹, or -(L)_mCy¹.
- 91. (Previously presented) The composition according to claim 90, wherein L is an optionally substituted C₁₋₆ straight or branched alkylidene chain wherein one methylene unit of L is optionally replaced by O, NR, NRCO, NRCONR, NRCO₂, CO, CO₂, CONR, OC(O)NR, SO₂, SO₂NR, NRSO₂, NRSO₂NR, C(O)C(O), or C(O)CH₂C(O).
- (Previously presented) The composition according to claim 90, wherein A³ is CR⁴ and R⁴ is halozen or R.
- (Previously presented) The composition according to claim 90, wherein A³ is CR⁴ and R⁴ is -(L)_mR, wherein L is -O- or -N(R)-.
- 94. (Previously presented) The composition according to claim 90, A³ is CR⁴, R⁴ is -(L)_mCy¹, m is 0 and Cy¹ is 2-2, 2-5, 2-6, 2-7, 2-8, or 2-12.
- 95. (Previously presented) The composition according to claim 90, wherein A³ is CR^4 , R⁴ is $-(L)_mAr^1$, m is 0 and Ar¹ is 1-5, 1-6, 1-11, 1-12, 1-13, 1-19, 1-24, or 1-25.

96. (Previously presented) The composition according to claim 90, wherein A³ is CR⁴, R⁴ is -(L)_mR, and compounds have the formula **1F-1**:

97. (Previously presented) The composition according to claim 90, wherein A^3 is CR^4 , R^4 is $-(L)_mAr^1$, and compounds have the formula **IF-2**:

98. (Previously presented) The composition according to claim 90, wherein A^3 is CR^4 , R^4 is $-(L)_mCy^1$, and compounds have the formula **1F-3**:

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(Previously presented) The composition according to claim 47, wherein T is CR³,
 A¹, A² and A³ are each CR⁴ and compounds have the formula IG-1:

$$R^4$$
 R^4
 R^3
 R^0
 R^1

IG-1 .

- 100. (Previously presented) The composition according to claim 47, wherein each ZR^X is independently halogen, NO₂, CN, or an optionally substituted group selected from C₁₋₄ alkyl, aryl, aralkyl, -N(R')₂, -CH₂N(R')₂, -OR', -CH₂OR', -SR', -CH₂SR', -COOR', or -S(O)₂N(R')₂.
- 101. (Previously presented) The composition according to claim 47, selected from one of the following compounds:

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I-27,

I-28,

or I-37.